

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

What is claimed is,

1. - On a weapon, of the type adapted to carry a load of ammunition, to discharge a round, and automatically reload a next round from said load,

a battery powered microprocessor based assembly, in combination with a piezoelectric transducer, including provisions to store and run at least one program and to detect and track the depletion process of a load of ammunition, wherein:

said piezoelectric transducer is coupled to said weapon, as to generate sequences of electrical impulses substantially resulting from induced stresses, induced into said transducer by the sequence of dynamic events taking place upon said weapon being operated,

and in which, provisions are made to selectively track and to correlate in time portions of said electrical impulse sequences with portions of said sequence of dynamic events,

in which further provisions are made such that detected, tracked and correlated portions of said electrical impulse sequences, can be utilized to determine at least if said weapon was discharged and has automatically reloaded or if it has only been discharged,

2. - The assembly of claim 1 in which said assembly is adapted to be responsive and to become enabled from a lower power wait state upon said weapon being operated.

3. - The assembly of claim 2 in which said assembly is adapted to automatically

return to said lower power wait state.

4. - The assembly of claim 1 in which said assembly has at least one control means.
5. - The assembly of claim 4 in which at least one of said control means is adapted to allow programming of said assembly by the user.
6. - The assembly of claim 1 in which said assembly may contain more than one transducer.
7. - The assembly of claim 1 in combination with a switch device adapted to function as a weapon component status detector.
8. - The assembly of claim 7 in which said switch device functions also as a control means.
9. - The assembly of claim 1 in which a weapon operation event detecting means capable of detecting inclination is used.
10. - The assembly of claim 1 in which said assembly has provisions for activating signal means regarding ammunition load resources.
11. - The assembly of claim 1 in which said assembly has supplemental data storage provisions.
- 12.- The assembly of claim 1 in which said assembly has provisions for establishing and recording real time information regarding weapon discharge events.
- 13.- The assembly of claim 1 in which user traceable information is embedded.

**14.- The assembly of claim 1 in which said assembly has data communication provisions.**

**15.- The assembly of claim 14 in which at least one of said communication provisions allow programmability.**

**16.- The assembly of claim 14 having communication provisions for securely reading stored data.**